GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:1528
ANSWERED ON:29.07.2015
Spent Fuel in NPP
Kumar Shri P.

Will the Minister of ATOMIC ENERGY be pleased to state:

(a)whether the Government has assessed the threat perception of the spent fuel generated from nuclear plants in the country;

(b)if so, the details thereof;

(c)the quantum of such nuclear wastes likely to be generated by the Nuclear Power Plants (NPPs) in the country;

(d)whether the Government has codified any rules and regulations for disposing of such wastes; and the latest technology available world-wide is also being used in the country for disposal of the nuclear waste; and

(e)if so, the details thereof and if not, the reasons therefor?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (Dr. JITENDRA SINGH) :

(a)&(b)In India no spent fuel is disposed off. After reprocessing spent fuel, only 2-3% of the original mass remains as waste. This waste is vitrified in an unleachable form. There are well defined rules and regulation given by Atomic Energy Regulatory Board (AERB) for disposal of any nuclear waste. In any case, the impact on the environment is far negligible compared to disposal of waste from non-nuclear power stations.

(c)The quantum of vitrified waste amount to barely 2−3% of the original mass of the nuclear fuel, which itself is very low after given amount of energy generated. For example, operation of a 540 Mwe Pressurised Heavy Water Reactor for one year requires about 91 tonnes of nuclear fuel, and produces about 2 tonnes of vitrified waste, in the form of glass contained within two layers of stainless steel canisters.

(d)&(e)Yes, Sir. The storage and disposal of radioactive wastes in the country is governed by the provisions of the Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, 1987 framed under the Atomic Energy Act, 1962. AERB has been entrusted with the responsibility for enforcement of these rules in the facilities regulated by it. AERB has specified the requirements for safe management of radioactive wastes in the form of Safety Code (AERB/SC/RW) and has issued several guides thereunder providing guidance on various aspects to meet the requirements of the Code.

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